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(54) VAPOR PHASE GROWING DEVICE

(57) Abstract:

PURPOSE: To continuously form a thin film without bringing a material to be worked into contact with the atmosphere by comparing a reaction chamber into both the reaction chamber of light CVD treatment and the reaction chamber of plasma CVD treatment and successively performing light CVD and plasma CVD.

CONSTITUTION: A reaction chamber 1 is compared into a first reaction chamber 2 and a second reaction chamber 3 by a partition 1a. A material 4 to be worked is placed on a placing base of the second reaction chamber 3 by a transferring means 19. An opening/closing door 6 is opened and reactive gas is introduced through a feed port 13 in a vacuum state and also the material 4 to be worked is irradiated with ultraviolet rays from an ultraviolet-ray lamp 18. A thin film is formed by a light CVD method. Then the material 4 to be worked is set in the first reaction chamber 2 by the transferring means 19 and the door 6 is closed. High frequency electric power is impressed to an electrode 14 by a high frequency power source 15. A gaseous raw material is introduced through a feed port 13 and plasma 20 is generated and a thin film is formed on the surface of the material A to be worked. Furthermore a thin film is again formed on the surface of the material 4 to be

worked by the light CVD method in the second reaction chamber 3. Thereafter the material 4 wherein working has been completed thereon is taken out via the first reaction chamber 2 and a load lock chamber 7.

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